MEMO

TO:

Barry Drucker Minerals Management Service 381 Elden St. Herndon, VA 20170-4817

FROM:

William Burton (Program Manager) Versar, Inc. 9200 Rumsey Road Columbia, MD 21045

SUBJECT:

Progress report for Contract No. 1435-01-02-CT-85060 "Environmental Investigation of the Use of Shoals Offshore Delaware and Maryland by Mobile Benthos and Finfish Species"

This is the fourth progress report of the MMS finfish study that summarizes our accomplishments on this contract since the last report submitted in August 2003. Late summer sampling was conducted during the reporting period from about mid August to the end of September 2003. All gill net sets, commercial, and experimental trawling was accomplished without any major problems with the exception of weather delays caused by hurricane Isabel. Northern Searobin, Scup, Clearnose Skate, and Squid dominated the summer 2003 survey catches. Kyle Hartman from the University of West Virginia conducted several days of nighttime bioacoustics surveys off Versar's RV/Integrity. All field data were reviewed and the data were appended to Versar's growing database for the program. During the reporting period Versar conducted similar sampling for the USACE Philadelphia district at two inshore borrow sites near Fenwick Island. One of the two sites was recently mined for a beach replenishment project in the State of Delaware. Catches from this site was dramatically different that the MMS study shoals. Trawl collections produced very high numbers of butterfish, spotted hake, and Atlantic mackerel, and weakfish. This USACE work will enhance the MMS study by providing addition reference sites to help place the fish community abundance and composition observed in Federal Waters to those observed in water inside the three-mile limit.

We are currently gearing up to conduct the fall 2003 sampling and we anticipate starting this sampling event in early November 2003.

During the reporting period we prepared and delivered a presentation to the MMS and Delaware Geological Survey workshop on offshore sand resources held at the University of Delaware on October 23, 2003. Our project manager, Ward Slacum presented our study methods and the preliminary results based on the first year's data. Our preliminary

analysis indicated that fish abundance and species richness within the shoals are not significantly different for their respective flat bottom reference area. However, we stressed that we have not conducted species-specific analyses or more sophisticated statistical testing which may find other differences among the study strata. Our presentation was very pertinent to the meeting particularly in regard to the many essential fish habitat issues raised throughout the day. Judging from the questions and comments received after our talk I am certain we generated a lot of positive interest in the MMS program.